

HFC PLANT CERTIFICATION PROCEDURE USING CABLE MODEMS

ABSTRACT OF THE DISCLOSURE

5 A system for testing a cable network during normal operation interleaves test
signals with live data traffic. Installed cable modems are used to generate the test
signals. During live communication, such modems send upstream data at allotted
time periods. Periodically, there are time slots when no modem is transmitting on the
network. During these times, specific modems may be directed to transmit specific
test signals. A controller such as a cable modem termination system directs specific
10 modems to transmit signals at defined frequencies and powers during specific time
slots. In this manner, the system can monitor the frequency response of the cable
network at various locations, and thereby determine "on-the-fly" when maintenance
or modification is required.